## **ABSTRACT**

An insulation degradation diagnostic device (1a) comprises a current transformer (7a), a first amplifier (15), 5 a first high-pass filter (17), a low-pass filter (19), a second amplifier (20), a second high-pass filter (21), and a discharge judgment section (30). The current transformer (7a) has a filtering function with an amount of attenuation of -60 dB or less and a slope characteristic of -5 dB/oct 10 or less at a commercial frequency and detects a current flowing through a grounding conductor (5). The first amplifier (15) amplifies a current signal from the current transformer (7a). The first high-pass filter (17) removes a low frequency component from an amplified current signal. 15 The low-pass filter (19) removes a high frequency component from a current signal from which the low frequency component has been removed. The second amplifier (20) amplifies a current signal from the low-pass filter (19)predetermined level. The second high-pass filter (21) 20 extracts a signal corresponding to a discharge current caused by a partial discharge from the current signal amplified in the second amplifier (20). The discharge judgment section (30) judges whether or not a partial discharge has occurred in a cable (2) based on the signal extracted in the second 25 high-pass filter (21).